

REMARKS

Claims 1-3, 5-12 and 15-22 are in this application and are presented for consideration. By this amendment, Applicant has amended claims 1, 8, 10, 11, 15 and 16. Claims 18-22 have been designated as withdrawn.

Claims 1-3, 5-12 and 14-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Heimlicher (U.S. 3,934,508) in view of Gertsch et al. (U.S. 5,142,977).

The present invention relates to a process and a device for engaging and/or disengaging a roller with or from a first mating cylinder wherein the roller is engaged with a second mating cylinder. The roller is mounted to a feed unit. A basic unit is connected to the roller via the feed unit. The basic unit guides the roller together with the feed unit in a direction parallel to a tangential direction of the second mating cylinder such that the basic unit moves the roller from a first position to a second position. The roller continuously engages the second mating cylinder when the basic unit moves the roller from the first position to the second position. The roller is in contact with the first mating cylinder and the second mating cylinder in the second position and the feed unit is positioned in a bisecting line position with a rotational axis between the first mating cylinder and the second mating cylinder when the roller is in the second position. The feed unit generates engaging pressure with which the roller acts approximately uniformly on the first mating cylinder and the second mating cylinder when the feed unit is in the bisecting line position such that a nip ratio between the first mating cylinder and the second mating cylinder is substantially equal. This advantageously allows inking to be maintained so that roller does not dry up since the circumferential movement of roller allows it to be

maintained in contact with the roller. However, in addition to this, it is possible to adjust the position of the roller 1 in a tangential direction (namely a direction parallel to the tangent of roller 4 - the second mating roller). This advantageously allows the nip distribution to be changed so that a greater nip width between one of the first mating cylinder and the roller or between the second mating cylinder and the roller can be provided. The prior art as a whole fails to disclose such features or such drying out preventing advantages.

Heimlicher discloses a printing press with a roller adjustment apparatus. The basic roller arrangement includes a plate cylinder 1 with a printing plate 2, a hard surface roller 5 and a soft surface inking roller 6. The plate cylinder 4 rotates about a central axis but also has an eccentric bearing bush 4 allowing a varying in position of the plate cylinder 1. The roller 5 has an axle 10. The inking roller 6 is connected by a mechanism that includes a slide lever 9. This allows movement driven by a working cylinder (movement drive). Based on this arrangement the inking roller 6 can move about the roller 5, while being maintained in contact with the roller 5 (moving in a circumferential direction). The sliding nature of the central axis of the inking roller 6 also allows the inking roller to be disengaged from the roller 5 (see Figure 4).

Heimlicher fails to teach or suggest the combination of moving a roller from a first position to a second position wherein the rotational axis of the roller bisects an angle defined by the axis of the first mating roller and the second mating roller when the roller is in contact with the first mating roller and the second mating roller in the second position. Heimlicher merely discloses a roller 6 that is moved in a circumferential direction of roller 5 via pivoting at pivot 10 or moving the roller 6 radially in a slide direction along a slide path provided by a

lever 9. However, the roller 6 does not move in a tangential direction of a second mating roller and does not bisect an angle defined by an axis of plate cylinder 1 and an axis of roller 5 when the roller 6 is in contact with the cylinder 1 and the roller 5 as claimed. Compared with Heimlicher, the roller 1 of the present invention is moved from a first position to a second position wherein the roller engages a first mating cylinder and a second mating cylinder in the second position. According to the present invention, a rotational axis of the roller bisects an angle defined by an axis of the first mating cylinder and an axis of the second mating cylinder. This advantageously allows the nip distribution to be changed so that a greater nip width can be provided between first mating cylinder and the second mating cylinder while the roller continues to remain wet. This advantageously prevents the roller from drying up. Heimlicher fails to teach or suggest such nip distribution changing advantages since Heimlicher only discloses a roller 6 that is moved in a circumferential direction of a roller or that is moved in a radial direction, but is void of any teaching or suggestion that the roller 6 bisects an angle defined by the axes of the plate cylinder 1 and the roller 5 as claimed. In fact, Heimlicher does not disclose that the roller 6 applies pressure uniformly to the plate cylinder 1 and the roller such that the nip ratio between the plate cylinder 1 and the roller 5 is substantially equal as featured in the present invention. As such, the prior art as a whole takes a completely different approach and fails to disclose important features of the claimed combination.

Gertsch et al. discloses a stationary cylinder 4, an application roller 6 and a stereo cylinder 7. A rocking lever 30 is rotary-mounted around rotation axis 31 of cylinder 4. Roller lock 20, in which application roller 6 is rotary-mounted, is stationarily attached to rocking lever

30. Into roller lock 20 bolt 32 extends, which is attached to guide lever 33. Guide lever 33 is hinged to the frame of the machine via hinge pin 37. The adjustment of application roller 6 relative to cylinder 4 is accomplished by a radial displacement with respect to cylinder 4. The adjustment of application roller 6 relative to the stereo cylinder is accomplished by swivelling rocking lever 30 relative to guide lever 33. With such a mechanism, the position of application roller 6 relative to cylinder 4 is first set. This is done when application roller 6 and, rocking lever 30 is in the position away from stereo cylinder 7. Once the position of application roller 6 relative to cylinder 4 is set, then by swivelling rocking lever 30 in the direction of stereo cylinder 7, the position of application roller 6 relative to stereo cylinder 7 is set. The mechanism to set application roller 6 relative to stereo cylinder 7 or cylinder 4 is also applicable to the transfer roller 5, according to which the setting of these transfer rollers 5 is done relative to two cylinders 4.

Gertsch et al. fails to teach or suggest the combination of moving a roller in a direction parallel to a tangent line of a mating roller from a first position to a second position such that the roller generates a uniform pressure on a first mating cylinder and a second mating cylinder when the roller is in the second position. Although Gertsch et al. discloses that setting directions of spindles may be set tangential to cylinder 4a or 4b, Gertsch et al. clearly discloses that the roller 6 is adjusted along a circumferential direction of cylinder 4 as clearly shown in Figure 4. However, the roller 6 of Gertsch et al. does not move in a tangential direction of a second mating roller as claimed. Compared with Gertsch et al., the roller 1 of the present invention is engaged from and disengaged from a first cylinder 3 while staying wet. This

advantageously prevents the roller from drying up since the circumferential movement of the roller 1 maintains contact with roller 4. The fact that the roller moves in a tangential direction of the second cylinder is significant in the present invention because it allows the nip distribution to be changed. Gertsch et al. fails to teach or suggest such nip distribution changing advantages since Gertsch et al. only discloses a roller 6 that is moved in a circumferential direction of a roller or that is moved in a radial direction, but is void of any teaching or suggestion that the roller 6 moves in a tangential direction as claimed. As such, the prior art as a whole does not establish a prima facie case of obviousness as the cited prior art references do not teach or suggest important features of the claimed combination. Accordingly, Applicant respectfully requests that the Examiner favorably consider claims 1, 8 and 11 as now presented and all claims that respectively depend thereon.

Claims 8-12 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Jahn (U.S. 5,081,927) in view of Gertsch et al.

The Office Action admits that Jahn does not teach or suggest a roller that is moved in a direction tangential to an outer surface of a second mating roller and relies on Gertsch et al. to teach such movement of a roller. However, as previously discussed above, Gertsch et al. merely discloses a roller 6 that is rotary-mounted such that the roller 6 pivots in a circumferential direction of cylinder 4 and not in a direction parallel to a tangent line of a mating roller as claimed. As such, the prior art takes a different approach and fails to provide any teaching or suggestion that would direct the person of ordinary skill in the art toward the combination of features claimed. Accordingly, Applicant respectfully requests that the

Examiner favorably consider claims 8 and 11 as now presented and all claims that respectively depend thereon.

Favorable consideration on the merits is requested.

Respectfully submitted
for Applicant,



By: _____
John James McGlew
Registration No. 31,903
McGLEW AND TUTTLE, P.C.

- and -



By: _____
Brian M. Duncan
Registration No. 58,505
McGLEW AND TUTTLE, P.C.

JJM:BMD
71829-11

DATED: December 15, 2008
BOX 9227 SCARBOROUGH STATION
SCARBOROUGH, NEW YORK 10510-9227
(914) 941-5600

SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE
IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-
0410.